# Pizza Sales Analysis—SQL Project

This analysis focuses on querying a comprehensive dataset containing information on pizza sales transactions. By leveraging SQL (Structured Query Language), a powerful tool for managing and analyzing relational databases, I aim to extract meaningful patterns, trends, and statistics that illuminate various aspects of pizza sales performance.

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# Q1: Retrieve the total number of orders placed.

```sql
SELECT
    COUNT(order_id) AS total_orders
FROM
    orders
```

| total_orders |
| --- |
| 21350 |

# Q2: Calculate the total revenue generated from pizza sales.

```sql
SELECT
    ROUND(
        SUM(
            order_details.quantity * pizzas.price
        ),
        2
    ) AS total_sales
FROM
    order_details
JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id
```

| total_sales |
| --- |
| 817860.05 |

# Q3: Identify the highest-priced pizza.

```sql
SELECT
    pizza_types.name,
    pizzas.price
FROM
    pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
ORDER BY
    pizzas.price
DESC
LIMIT 1
```

| name | price |
| --- | --- |
| The Greek Pizza | 35.95 |

# Q4: Identify the most common pizza size ordered.

```sql
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
JOIN order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY
    pizzas.size
ORDER BY
    order_count
DESC ;
```

| size | order_count ▼ 1 |
|---|---|
| L | 18526 |
| M | 15385 |
| S | 14137 |
| XL | 544 |
| XXL | 28 |

# Q5 : List the top 5 most ordered pizza types along with their quantities.

```sql
SELECT
    pizza_types.name,
    SUM(order_details.quantity) AS quantity
FROM
    pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY
    pizza_types.name
ORDER BY
    quantity
DESC
LIMIT 5;
```

| name | quantity |
|---|---|
| The Classic Deluxe Pizza | 2453 |
| The Barbecue Chicken Pizza | 2432 |
| The Hawaiian Pizza | 2422 |
| The Pepperoni Pizza | 2418 |
| The Thai Chicken Pizza | 2371 |

# Q6: Join the necessary tables to find the total quantity of each pizza category ordered.

```sql
SELECT
    pizza_types.category,
    SUM(order_details.quantity) AS quantity
FROM
    pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY
    pizza_types.category
ORDER BY
    quantity
DESC ;
```

| category | quantity ▼ 1 |
|---|---|
| Classic | 14888 |
| Supreme | 11987 |
| Veggie | 11649 |
| Chicken | 11050 |

# Q7:Determine the distribution of orders by hour of the day.

| hour | order_count |
|---|---|
| 9 | 1 |
| 10 | 8 |
| 11 | 1231 |
| 12 | 2520 |
| 13 | 2455 |
| 14 | 1472 |
| 15 | 1468 |
| 16 | 1920 |
| 17 | 2336 |
| 18 | 2399 |
| 19 | 2009 |
| 20 | 1642 |
| 21 | 1198 |
| 22 | 663 |
| 23 | 28 |

```sql
SELECT
    HOUR(TIME) AS hour,
    COUNT(order_id) AS order_count
FROM
    orders
GROUP BY
    HOUR(TIME)
```

# Q8: Join relevant tables to find the category-wise distribution of pizzas.

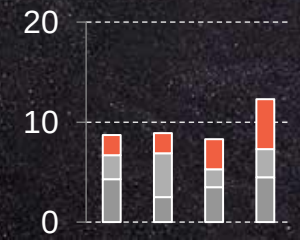
```
SELECT
    category,
    COUNT(NAME)
FROM
    pizza_types
GROUP BY
    category;
```

| category | COUNT(NAME) |
|---|---|
| Chicken | 6 |
| Classic | 8 |
| Supreme | 9 |
| Veggie | 9 |

# Q9: Group the orders by date and calculate the average number of pizzas ordered per day.

```sql
SELECT
    ROUND(AVG(quantity),0) AS avg_pizza_ordered_per_day
FROM
    (SELECT
        orders.date,
        SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY
        orders.date) AS order_quantity
```

| avg_pizza_ordered_per_day |
| --- |
| 138 |



# Q10: Determine the top 3 most ordered pizza types based on revenue.

```sql
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
JOIN pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY
    pizza_types.name
ORDER BY
    revenue
DESC
LIMIT 3
```

- Option A
- Option B
- Option C

| name | revenue ▾ 1 |
|---|---|
| The Thai Chicken Pizza | 43434.25 |
| The Barbecue Chicken Pizza | 42768.00 |
| The California Chicken Pizza | 41409.50 |

# Q11: Calculate the percentage contribution of each pizza type to total revenue.

```sql
SELECT
    pizza_types.category,
    ROUND(SUM(order_details.quantity * pizzas.price) /
          (SELECT ROUND(SUM(order_details.quantity * pizzas.price), 2)
           AS total_sales
        FROM
            order_details
        JOIN pizzas ON pizzas.pizza_id = order_details.pizza_id) * 100, 2 )
                    AS revenue_in_percentage
FROM
    pizza_types
JOIN pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
JOIN order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY
    pizza_types.category
ORDER BY
    revenue_in_percentage DESC
```

| category | revenue_in_percentage | 1 |
|---|---|---|
| Classic | 26.91 | |
| Supreme | 25.46 | |
| Chicken | 23.96 | |
| Veggie | 23.68 | |

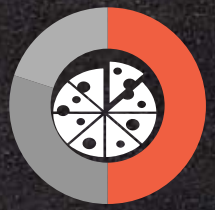
# Q12: Determine the top 3 most ordered pizza types based on revenue for each pizza category.

```sql
SELECT name,revenue FROM
(SELECT category ,name,revenue,rank()
 over
 (PARTITION BY category ORDER BY revenue DESC)as rn
FROM
 (SELECT pizza_types.category,pizza_types.name,
  sum((order_details.quantity) * pizzas.price) as revenue
  FROM pizza_types JOIN pizzas
  on pizza_types.pizza_type_id=pizzas.pizza_type_id
  JOIN order_details
  on order_details.pizza_id=pizzas.pizza_id
  GROUP BY pizza_types.category,pizza_types.name) AS a )AS b
  WHERE rn <= 3 ;
```

| name | revenue |
|---|---|
| The Thai Chicken Pizza | 43434.25 |
| The Barbecue Chicken Pizza | 42768.00 |
| The California Chicken Pizza | 41409.50 |
| The Classic Deluxe Pizza | 38180.50 |
| The Hawaiian Pizza | 32273.25 |
| The Pepperoni Pizza | 30161.75 |
| The Spicy Italian Pizza | 34831.25 |
| The Italian Supreme Pizza | 33476.75 |
| The Sicilian Pizza | 30940.50 |
| The Four Cheese Pizza | 32265.70 |
| The Mexicana Pizza | 26780.75 |
| The Five Cheese Pizza | 26066.50 |

Show all | Number of rows: 25

Option A
Option B
Option C




THANK YOU